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P. Walker  
PATENT 2-2702

S/N 09/817,447

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kie Y. Ahn et al.

Examiner: James Mitchell

Serial No.: 09/817,447

Group Art Unit: 2822

Filed: March 26, 2001

Docket: 303.459US2

Title: METHODS FOR MAKING COPPER AND OTHER METAL  
INTERCONNECTIONS IN INTEGRATED CIRCUITS

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Commissioner for Patents  
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on October 23, 2001. Please amend the above-identified patent application as follows.

**IN THE CLAIMS**

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect the amendment of previously pending claim 38 and addition of new claims 39-76. The specific amendments to individual claims are detailed in the following marked up set of claims.

38. (Amended) An integrated-circuit assembly comprising:
- an insulative layer having a trench or hole, the trench or hole having an edge;
  - a first diffusion barrier having a portion inside the trench or hole; and
  - a second diffusion barrier on the [trench] insulative layer and having an edge substantially flush with a least a portion of the edge of the trench or hole, with the second diffusion barrier comprising a zinc oxide material and the first diffusion barrier comprising a material different than the zinc oxide material.

02/19/2002 MWOLDR1 0000066 09817447

01 FC:102  
02 FC:103

420.00 OP  
342.00 OP

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

28228

Applicant: Kie Y. Ahn et al.

Title: METHODS FOR MAKING COPPER AND OTHER METAL INTERCONNECTIONS IN INTEGRATED CIRCUITS

Docket No.: 303.459US2  
 Filed: March 26, 2001  
 Examiner: James Mitchel



Serial No.: 09/817,447  
 Due Date: January 23, 2002  
 Group Art Unit: 2822

Commissioner for Patents  
 Washington, D.C. 20231

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We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ An Amendment and Response under 37 CFR 1.111 (10 Pages).
- ☒ A Supplemental Information Disclosure Statement (1 pg.), Form 1449 (1 pg.), and copies of 2 cited references.
- ☒ A check in the amount of \$180.00 to cover the fee for consideration of Information Disclosure Statement under 97(c).
- ☒ A check in the amount of \$762.00 to cover the fee for additional claims as calculated below.
- ☒ Clean Version of Pending Claims (8 pgs.).

If an additional fee is required due to changes to the claims, the fee has been calculated as follows:

CLAIMS AS AMENDED						
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Present Extra	Rate	Fee
TOTAL CLAIMS	39	-	20	19	x 18 =	\$342.00
INDEPENDENT CLAIMS	8	-	3	5	x 84 =	\$420.00
[ ] MULTIPLE DEPENDENT CLAIMS PRESENTED						\$0.00
TOTAL						\$762.00

Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
 P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

By:   
 Atty: Eduardo E. Drake  
 Reg. No. 40,594

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this 23rd day of January, 2002.

Name Amy Moriarty

Signature Amy Moriarty

Customer Number 21186  
 SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)